

Ceratotoxin-1

Cat. No.:	HY-P5811
Molecular Formula:	C ₁₇₂ H ₂₅₆ N ₅₂ O ₅₀ S ₆
Molecular Weight:	4044.58
Sequence:	Asp-Cys-Leu-Gly-Trp-Phe-Lys-Ser-Cys-Asp-Pro-Lys-Asn-Asp-Lys-Cys-Cys-Lys-Asn-Tyr-Thr-Cys-Ser-Arg-Arg-Asp-Arg-Trp-Cys-Lys-Tyr-Asp-Leu-NH ₂ (Disulfide bridge:Cys2-Cys17;Cys9-Cys22;Cys16-Cys29)
Sequence Shortening:	DCLGWFKSCDPKNDKCKCKNYTCSRDRWCKYDL-NH ₂ (Disulfide bridge:Cys2-Cys17;Cys9-Cys22;Cys16-Cys29)
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Ceratotoxin-1 (CcoTx1), a peptide toxin, is a voltage-gated sodium channel subtypes inhibitor. Ceratotoxin-1 inhibits Nav1.1/β1, Nav1.2/β1, Nav1.4/β1, and Nav1.5/β1 with IC ₅₀ of 523 nM, 3 nM, 888 nM, and 323 nM, respectively. Ceratotoxin-1 also inhibits Nav1.8/β1 ^[1] .			
IC₅₀ & Target	Nav1.1 523 nM (IC ₅₀)	Nav1.2 3 nM (IC ₅₀)	Nav1.4 888 nM (IC ₅₀)	Nav1.5 323 nM (IC ₅₀)
	Nav1.8			

REFERENCES

[1]. Frank Bosmans, et al. Four novel tarantula toxins as selective modulators of voltage-gated sodium channel subtypes. Mol Pharmacol. 2006 Feb;69(2):419-29.

Caution: Product has not been fully validated for medical applications. For research use only.

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